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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,588	01/17/2001	Gerald M. Rich	RICH1	6657

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EXAMINER	
FERRIS, DERRICK W	

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/764,588	RICH, GERALD M.	
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/21/2002*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 4-9, 11, 24, 27, 29, 31, and 32** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 2002/0034291 A1 to *Pope et al.* ("*Pope*").

As to **claim 1**, see the background (not to be confused with *Pope*'s invention) of *Pope* with respect to 1:1 traffic protection ratio, see e.g., paragraph 0006 and 0010 on page 1. As such, with respect to applicant's figure 1 and figure 1 of *Pope*, applicant's primary cable station 102(a-c) are sites 144 and 152; applicant's back-up cable stations 104(a-c) are sites 146 and 148; applicant's primary cable system 100(a-b) is link 170; and applicant's back-up cable system 103(a-b) is link 172. Also note that the links could configured be a ring design, see e.g., paragraphs 0010-0011. In particular, since the background teaches 1:1 traffic protection, the back-up cable system is dedicated.

As to **claims 4-5**, *Pope* discloses other types of cable systems that may not be suitable, see the preferred embodiment of *Pope*. Also note that copying the same architecture over provides two separate rings.

As to **claims 6-9**, the system supports 1:1 protection and thus supports up to 100% of the equipment capacity (i.e., the system supports 50%, 60%, 80%, or 100%).

As to **claim 11**, see similar rejection to claim 1. Although one cable system is shown in the figure (e.g., cable system 170), more than one cable system is supported without departing from the spirit of scope of the invention for the background.

As to **claim 24**, see similar rejection to claim 11.

As to **claim 27**, see similar rejection to claim 11.

As to **claim 29**, see sites 144 and 146 which are on land.

As to **claim 31**, see figure 1where cable landing stations are 144, 152, 146, and 158.

As to **claim 32**, the sites use ADMs which are optical cross connects.

3. **Claims 1, 4-9, 11, 24, 27, 31, and 32** are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,982,517 A to *Fishman*.

As to **claim 1**, see figure 1 which shows a dedicated backup cable system where a cable uses a dedicated protection ring 2 on a dedicated fiber. In particular, protection in case of a cable cut such that the dedicated protection ring is on a separate fiber. In particular, see figure 3 where if a fiber cut occurs both working 10 and protection 20 fibers on a same cable fail such that the traffic is rerouted to a dedicated protection ring 30 over a different cable where the rerouting can use a separate or backup switch, see e.g., column 3, line 46 – column 4, line 23.

As to **claim 4**, if only one protection ring is used then protection capacity is considered "not suitable".

As to **claim 5**, see figure 1 which is a ring system and where the dedicated protection ring is not part of the ring system.

As to **claims 6-9**, the system supports 1:1 protection and thus supports up to 100% of the equipment capacity (i.e., the system supports 50%, 60%, 80%, or 100%).

As to **claim 11**, see similar rejection to claim 1 where both the primary and the backup protection ring use multiple rings.

As to **claim 24**, see figure 3 which shows service being interrupted.

As to **claim 27**, see similar rejection to claim 1 where both the primary and the backup protection ring use multiple rings.

As to **claim 31**, see figure 2 where one cable station is 70 and another cable station is 80.

As to **claim 32**, WDM uses optical cross-connects.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 2-3, 10, 12, 14-21, 23, 25, 26, 28 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2002/0034291 A1 to *Pope et al.* ("*Pope*").

As to **claims 2-3**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to pay restoration fees. In particular, it is established and well known in the art to establishing a fee structure in

charging customers for usage of a cable transport system such as for backup services where such fees/service help generate revenue and recover costs for the network cable operator.

As to **claims 10**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to have a cable system owned by a plurality of network cable system operators. It is well known and established that network cable systems are complicated and costly to maintain such that it is sometimes necessarily for more than one operator to maintain the system including maintaining the system for backup and restoration services.

As to **claim 12**, see similar rejection to claim 10.

As to **claim 14**, examiner notes that it would have been obvious to one skilled in the art to transmit more preemptable traffic than non- preemptable traffic when no restoration service is used since preemptable traffic is by definition more important and thus requires a higher priority.

As to **claims 15-17**, see similar rejections to claims 2-3.

As to **claim 18**, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to establish a restoration service provided under contract. The motivation for the above-mentioned limitation would be that service contracts are well known in the art in order to establish a service level agreement between the customer and network operator.

As to **claims 19-20**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to have different level of

services creating a tiered service that includes premium service. It is well known and established that tiered services are used for marketing purposes to attract different types of customers as well as provide additional revenue streams for the network cable operator.

As to **claim 21**, see similar rejection to claims 2-3.

As to **claim 23**, see similar rejection to claim 10

As to **claim 25**, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to revert back to the original state by transmitting traffic back over the primary cable once the link has been restored. Examiner notes that one skilled in the art would be motivated to reverting back to the original step in order to maintain system state.

As to **claim 26**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to lease capacity on the back-up cable system other than restoration service on a temporary basis. It is well known and established that leasing services are used for marketing purposes to attract different types of customers as well as provide additional revenue streams for the network cable operator.

As to **claim 28**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to use existing infrastructure to transport cables which include tunnels. It is well known and established that tunnels are used to transport cables underground since tunnels are part of the existing infrastructure and may help reduce costs is laying the cable down between various sites.

As to **claim 30**, see similar rejection to claim 10.

6. **Claims 13, 22, and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 2002/0034291 A1 to *Pope et al.* ("*Pope*") in view of "Dynamic Packet Transport Technology and Application's Overview" to *Cisco*.

As to **claim 13**, *Pope* is silent or deficient to using a POP to transport services. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to connected to a POP. The motivation to connect to a POP would be to access other networks such as the Internet. As such, *Cisco* teaches the above motivation figure 9 on page 10. In particular, various access sites are connected in various redundant fashions to the POP.

As to **claim 22**, see similar rejection to claim 13 where the POP uses IP thus creating a motivation to use IP at a network layer.

As to **claim 33**, see similar rejection to claim 13

7. **Claims 2-3, 10, 12, 14-21, 23, 25, 26, 28 and 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,982,517 A to *Fishman*.

As to **claims 2-3**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to pay restoration fees. In particular, it is established and well known in the art to establishing a fee structure in charging customers for usage of a cable transport system such as for backup services where such fees/service help generate revenue and recover costs for the network cable operator.

As to **claims 10**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to have a cable system owned by a plurality of network cable system operators. It is well known and established that network cable systems are complicated and costly to maintain such that it is sometimes necessarily for more than one operator to maintain the system including maintaining the system for backup and restoration services.

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As to **claim 14**, examiner notes that it would have been obvious to one skilled in the art to transmit more preemptable traffic than non- preemptable traffic when no restoration service is used since preemptable traffic is by definition more important and thus requires a higher priority.

As to **claims 15-17**, see similar rejections to claims 2-3.

As to **claim 18**, examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to establish a restoration service provided under contract. The motivation for the above-mentioned limitation would be that service contracts are well known in the art in order to establish a service level agreement between the customer and network operator.

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As to **claim 28**, examiner takes *Official Notice* that it would have been obvious to one skilled in the art prior to applicant's invention to use existing infrastructure to transport cables which include tunnels. It is well known and established that tunnels are used to transport cables underground since tunnels are part of the existing infrastructure and may help reduce costs is laying the cable down between various sites.

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As to **claim 13**, *Fishman* is silent or deficient to using a POP to transport services. Examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to connected to a POP. The motivation to connect to a POP would be to access other networks such as the Internet. As such, *Cisco* teaches the above motivation figure 9 on page 10. In particular, various access sites are connected in various redundant fashions to the POP.

As to **claim 22**, see similar rejection to claim 13 where the POP uses IP thus creating a motivation to use IP at a network layer.

As to **claim 33**, see similar rejection to claim 13

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- U.S. Patent Application 2001/0055309 A1 is very similar to the Pope reference and thus can replace the Pope reference.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

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SUPERVISORY PATENT EXAMINER
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